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ABSTRACT

A study compared adult learners and traditional undergraduate students in terms of three communication traits that may affect the quality and quantity of communication in the classroom. The study investigated whether adult learners differed significantly from traditional undergraduate students in terms of communication apprehension, willingness to communicate, and communication competence; and examined the relationship between these communication traits and student learning. Subjects were 165 traditional undergraduate students and 108 adult learners at a large midwestern university. Results indicated that the two groups were not significantly different on the three communication traits examined. Communication apprehension and interaction involvement were found to be significantly related to achievement (cumulative GPA) in traditional undergraduate students sampled, but not in the adult learners. (Five tables of data are included, and 17 references are attached.) (Author/SR)

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Communication Traits and Student Learning: A Comparative Study of Traditional Undergraduate Students and Adult Learners

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Abstract

This study compared adult learners and traditional undergraduate students in terms three communication traits--communication apprehension, willingness to communicate, and interaction involvement--that may explain the different levels of student classroom involvement noted in the adult learner literature and examined the relationship between these communication traits and student learning. Subjects were 165 traditional undergraduate students and 108 adult learners at a large midwestern university. Results indicated that the two groups were not significantly different on the three communication traits examined. Communication apprehension and interaction involvement were found to be significantly related to achievement (cumulative GPA) in traditional undergraduate students sampled, but not in the adult learners.

Communication Traits and Student Learning: A Comparative Study of Traditional Undergraduate Students and Adult Learners

A significant and growing portion of the total pool of undergraduate students consists of adult learners. Many colleges and universities have developed active programs to recruit and educate this non-traditional student body.

The increase in the number of adult learners in colleges and universities has stimulated research into the learning process of the adult learner. Kidd's (1973) analysis of learning theory as applied to adult learners suggests that teaching adults creates some new challenges for educators. Wolvin (1984) and others have suggested similar conclusions. Adult learners, compared to traditional undergraduate students 18-21 years of age, are said to be more active participants in the learning process and to require a more structured and person-centered approach to learning (Brookfield, 1985; Lam, 1981). In short, the growing literature on adult learners suggests that adults, compared to traditional undergraduate students, are more active in classroom communications. The purpose of this study is to compare adult learners and traditional undergraduate students on three communication traits that may explain the different levels of student classroom involvement noted in the adult learner literature and to examine the relationship between these communication traits and student learning.

The essence of instruction is communication. Students and teachers must engage in frequent interaction for effective learning to take place (Bloom, 1976; Lysakowski & Walberg, 1982). Factors that interfere with either the quality or quantity of

classroom interaction may affect learning. Hence, instructors should be aware of factors that affect student classroom communications in order to better adapt their teaching styles and instructional strategies to meet the social concerns of students.

The communication literature contains several communication traits that may predict student interaction in the classroom. One construct which has been the focus of numerous investigations since 1970 is communication apprehension. Communication apprehension (CA) refers an individual's level of fear or anxiety associated with either real or anticipated communication with another (McCroskey, 1984). Numerous studies have examined the relationship between CA and learning in both traditional college students and K-12 students (Comadena & Prusank, 1988; Hurt & Preiss, 1978; McCroskey & Andersen, 1976; Scott & Wheeless, 1977). This research depicts a rather negative picture of the high communication apprehensive student. High CA is associated with low levels of achievement, negative attitudes toward school, and low teacher achievement expectations. Research on the nature and consequences of CA on adult learners has been slow to develop. Escott, Semlak and Comadena (1988) found that adult learners and traditional undergraduate students did not differ significantly in terms of CA as defined by McCroskey's PRCA-24 (McCroskey, 1982).

Recent theory and research in CA suggests that some individuals may experience CA in certain situations, such as in front of an audience or in a classroom. The studies mentioned above treated CA as a trait that influences the individual across

all communication contexts. Neer (1987) recently developed a scale that focused on the dimension of communication participation and communication confidence in the classroom. Neer's (1987) Class Apprehension about Participation Scale (CAPS) provides an index of one's level of CA in the classroom. It is difficult to speculate on differences in classroom CA between adult learners and traditional undergraduates. That past research found no significant difference between adult learners and traditional undergraduate students in trait CA does not necessarily mean the two groups are not different in their levels of classroom (generalized-context) CA. The developing body of literature on the adult learner suggests that adults will be less communication apprehensive in the classroom than traditional undergraduate students.

Willingness to communicate is another communication construct that may discriminate adult learners from traditional undergraduate students in terms of classroom involvement. Willingness to communicate refers to an individual's tendency to talk to others encountered in a wide variety of situations. McCroskey and Baer (1985) argue that some people talk a lot to most everyone, while others are very reluctant to talk to anyone. Chan and McCroskey (1987) applied the willingness to communicate construct to classroom situations and found a relationship between scores on the Willingness to Communicate Scale and actual observed communication interactions in class. They concluded that their study provided strong support for using the Willingness to Communicate Scale as a measurement that will

predict class interaction. The adult learner literature suggests that adults may be more willing to communicate than traditional undergraduate students.

Finally, communication competence has been identified as a significant factor in interpersonal communication processes and may distinguish adult learners from traditional undergraduate students. Communication competence is a multidimensional construct. A competent communicator is one who is attentive and perceptive of the behaviors of others (Cegala, 1981) and capable of modifying his or her behavior to accomplish certain communicative goals and objectives. Obviously this concept has implications for learning. Students high in communication competence are more likely than students low in communication competent to generate high quality comments and questions in class. Adult learners, who in many cases have more communication experience "in the real world," may be more competent at communication than their younger traditional counterpart, and thus engage in more classroom communication than traditional undergraduate students.

In summary, little research exists which directly compares the communication traits of adult learners and traditional undergraduate students. The developing body of literature on adult learners suggests that adults are more active than traditional undergraduate students in the learning process. The ages and experiential differences between adult learners and traditional undergraduate students suggests that there may be important differences between these two groups of students in

terms of CA, willingness to communicate and communication competence. The purpose of the present study was to compare adult learners and traditional undergraduate students on four communication traits that may affect the quality and quantity of communication in the classroom. The following research questions were addressed in this project.

RQ1: Do adult learners differ significantly from traditional undergraduate students in terms of communication apprehension, willingness to communicate and communication competence?

RQ2: Is the relationship between communication apprehension, willingness to communicate, communication competence and student learning different for adult learners than for traditional undergraduate students?

Methods

Subjects

Subjects for this study were 165 traditional undergraduate students (60 males and 102 females; 3 did report their sex) and 108 adult learners (24 males and 83 females; 1 did not report his/her sex) at a large midwestern university. The average age of the undergraduates was 19.41 years, while the average age of the adult learners was 36.55 years. The two groups were significantly different in age ($t=-25.22$, $df=271$, $p=.000$).

Measurement & Procedures

A basic premise in this study is that communication is an essential characteristic of instruction and that quality classroom communication is essential for learning. Thus, factors that interfere with classroom communication are likely to affect learning. Thus, instructors must be sensitive to those aspects of his or her instructional style and those characteristics of

students that may affect the quality and quantity of classroom communication.

The purpose of this study was to compare traditional undergraduate and adult learners on several communication variables that may affect the quality and quantity of student participation in classroom communication. Instructors who teach both types of students should be aware of differences in the communication tendencies of these two groups to more effectively adapt their teaching styles to meet the needs of their students. Thus four variables were measured on the basis of their ability to affect student willingness to participate in classroom communication. Those variables were two measures of CA, willingness to communicate, communication competence. The following section describes the instruments used to measure these variables.

Recent theory and research indicates that communication apprehension may exist in many forms (McCroskey, 1984). McCroskey (1984) distinguishes between traitlike communication apprehension, fear or anxiety with communication across a variety of social contexts, and generalized-context communication apprehension, fear or anxiety in specific social situations, such as public speaking situations. Both types of communication apprehension were explored in this study.

Trait CA was operationally defined as scores on the Personal Report of Communication Apprehension-24 (PRCA; McCroskey, 1982). The PRCA contains twenty-four Likert-type items designed to assess an individual's level of fear or anxiety associated with

communication in a number of social contexts. The reliability and validity of the PRCA are discussed in McCroskey (1984). In the present study, the PRCA and an internal reliability of .93 (Cronbach's alpha).

Generalized-context CA was operationally defined as scores on the Class Apprehension about Participation Scale (CAPS; Neer, 1987). The CAPS contains twenty Likert-type items designed to assess an individual's level of fear or anxiety associated with communication in the classroom setting. Evidence of the reliability and validity of the CAPS are discussed in Neer (1987). In the present study, the CAPS had an internal reliability of .94 (Cronbach's alpha).

Willingness to communicate was operationally defined as scores on the Willingness to Communicate Scale (WTCS; Appendix C) developed by McCroskey and Baer (1985). This instrument asks the respondent to estimate the percentage of time he or she would be willing to engage in social interaction in twenty different social situations. For each situation, the respondent is asked to report a from 0% (never) to 100% (always). Reliability and validity of the WTCS are discussed in McCroskey and Baer (1985). In the present study, the WTCS had an internal reliability of .87 (Cronbach's alpha).

An index of subjects' communication competence was provided by Cegala's (1981) Interaction Involvement Scale. The IIS contains eighteen Likert-type items designed to assess one's perceptiveness and attentiveness in social interactions. Data regarding the reliability and validity of the IIS are reported in

Cegala (1981). In the present study, the IIS has an internal reliability of .89 (Cronbach's alpha).

Student achievement was operationally defined as student's cumulative grade-point-average (GPA). GPA scores were obtained from university records. Since all subjects did not social security numbers, GPA scores were obtained for 138 of the 165 traditional undergraduate students and for 96 of the 108 adult learners.

The above scales, along with questions designed to record various demographic data and subject's social security number, were compiled in a single questionnaire and administered in the Spring semester of 1988. Subjects voluntarily completed the questionnaires.

Statistical Analysis

A multivariate analysis of variance (MANOVA) was performed to compare traditional undergraduates and adult learners on the four variables identified. Here, scores on the PRCA, the CAPS, the WTCS and the IIS were treated as dependent variables. Student classification (traditional undergraduate vs. adult learner) served as the independent variable. A MANOVA was deemed appropriate given the high degree of association expected among the four dependent variables.

To address the second research question, multiple regression analysis was performed. Two prediction equations were developed--one for adult learners and one for traditional undergraduate students--utilizing the two measures of CA, WTC, and IIS as predictor variables and GPA as the criterion variable. Alpha was

set at .05 for all tests of significance.

Results

Prior to conducting the MANOVA to answer the first research question, the intercorrelations among scores on the PRCA, CAPS, WTC and the IIS were examined to determine if the scales were sufficiently related to justify the MANOVA. Bartlett's test of sphericity indicated that the four variables were sufficiently correlated to warrant a multivariate test (chi square=392.96, df=6, p=000). Table 1 presents the Pearson correlation coefficients among the four dependent variables.

The multivariate effect for student classification was not significant (Wilk's lamda=.981, F(4,262)=1.21, p=.308). Adult learners were not found to be significantly different from traditional undergraduate students in terms of trait CA (PRCA), classroom CA (CAPS), willingness to communicate (WTC), or interaction involvement (IIS). Descriptive statistics for the four scales for adult learners and traditional undergraduate students are reported in Table 2.

To answer the second research question, stepwise multiple regression analysis was performed. Here scores on the PRCA, CAPS, WTC and the IIS served as predictor variables while cumulative GPA served as the criterion variable. Separate prediction systems were developed for adult learners and traditional undergraduate students.

Tables 3 and 4 present Pearson correlation coefficients among the predictor variables and the criterion variable (GPA) for adult learners and traditional students respectively. Table

5 presents a summary of the regression analyses. For traditional undergraduate students, only one variable--interaction involvement--entered the prediction equation and accounted for approximately 5% of the variance in GPA. Since none of the predictor variables were found to be significantly correlated with GPA in adult learners (See Table 4), a significant prediction equation was not generated for adult learners.

Discussion

Given the literature that has been generated by scholars in the area of continuing and extension education, the comparison the adult learners and traditional students in terms of the communication traits included in this study is surprising. As Table 2 indicates, no differences were found between the two samples on any of the communication traits. It is possible that the nature of the adult learner population included in this study may account for this finding. The adult learners in this study consisted of adults that chose to enter a four year degree granting adult program that is identical to the program offered to traditional undergraduate students. Much of the adult learner literature focuses on adults in basic education programs, non-credit programs, workshops, and remedial educational programs. It is possible that the adult students who self select the type of academic program sampled in this study are more like traditional undergraduate students than other populations of adult learners. However, a previous study that compared this population of adult learners with traditional students found significant differences between the two populations in terms of

self-esteem, test anxiety and locus of control (Escott, Semlak, & Comadena, 1988). In addition that study (Escott et al., 1988) did not find a significant difference between the two populations in terms of trait CA. The evidence collected so far comparing these two populations would suggest that real differences do exist between the two populations, but these differences do not include communication related constructs.

Dispite the apparent similarity between the two samples included in this study, the correlations between GPA and the four communication variables for the two samples provided some interesting results. For the adult learners, all of the correlations were in the predicted direction but none were statistically significant. For the traditional students, on the other hand, all correlations were in the predicted direction, but three were statistically significant. Traditional students' trait CA and classroom CA were significantly and inversely related to GPA and significantly and positively related to communication competence (interaction involvement).

Thus while the two populations have the same levels of communication apprehension, willingness to communicate, and communication competence, these communication traits are do not appear to be associated with adult learners' academic performance, but they do appear to be associated with traditional students' level of academic performance. It is possible that some other variable not included in this study interacts with these communication variables and their relationship with GPA.

An examination of GPA for the two groups may provide an

important clue in understanding the results of this study. The adult learners had a GPA of 3.20 while the traditional undergraduate students' had a GPA of 2.72 ($t=-5.76$, $df=232$, $p=.000$). Adults may differ from traditional undergraduates in terms of intelligence or academic ability and, as a result, better compensate for the effects of high CA and low communication competence. CA may have a very negative effect on adult learners who are low in academic ability. For example, Conner and Williams (1987) found that high levels of CA negatively affected the ability of low-level basic education adult learners to find and maintain employment. A second possibility may be experience. Most adult learners have full time jobs and many have previous military or academic educational experience. It is possible that experience has taught them how to do better in school at any given level of communication apprehension or communication competence. A third possibility is motivation. Most adult learners attend school while working full time and trying to maintain family commitments. Since they are making substantial personal sacrifices to attend school, they may be motivated to work harder and overcome any performance barrier presented by their level of CA and communication competence. Future research should attempt to compare adult learners with a diverse background with traditional students to determine if the adult population examined in this study is indeed atypical of the pool of adult learners. In addition, research should attempt to isolate variables that mediate the effect of the communication traits examined in this study. For example, it is possible that

a sample of traditional students with a 3.20 GPA would have differed from the the traditional student sample in this study the same way that the adult learner sample differed in this study.

The correlations coefficients observed CA and GPA generated some interesting results. Recall that trait CA and classroom CA were not correlated to GPA in the adult learners. Several other authors have found relationships between academic achievement and various measures of CA. While the results of the present study appear inconsistent with previous research, one must note that differences in the operational definitions of student learning may influence the observed correlation. Many of the previous studies utilized the grade received in a communication course as the measure of academic achievement. Overall GPA is a cumulative measure of student performance over a variety of academic situations and is thus a more comprehensive measure of student learning than the grade received in a specific class. In short GPA is a conservative measure of achievement. Studies that use the grade received on a communication assignment or the grade received in a communication course measure the influence of communication in a specific situation, the situation in which an effect is most likely to be found. The substantial correlation between CA and interaction involvement (communication competence) accounts for the reason why CA did not enter the regression equation. CA did not account a significant amount of unique variation in GPA.

Table 1

Pearson Correlation Coefficients Among Scores on the PRCA, CAPS, WTC, and the IIS

	CAPS	WTC	IIS
Trait CA (PRCA)	.75	-.41	-.51
Classroom CA (CAPS)		-.45	-.51
Willingness to communicate (WTC)			.37
Interaction Involvement (IIS)			

Notes:

1. All correlations are significant at alpha=.05.
2. Correlations are based on n=273.

Table 2

Descriptive Statistics for the PRCA, CAPS, WTC and the IIS for Adult Learners and Traditional Undergraduate Students

	Adult Learners	Traditionals
Trait CA (PRCA)	63.06 (15.90)	62.02 (13.69)
Classroom CA (CAPS)	49.66 (13.45)	51.01 (13.96)
Willingness to communicate (WTC)	826.13 (196.55)	828.24 (191.92)
Interaction Involvement (IIS)	89.41 (14.99)	89.41 (15.29)

Note: Table entries are mean scores and standard deviations (in parentheses).

Table 3

Pearson Correlation Coefficients Among Scores on the PRCA, CAPS, WTC, IIS and Cumulative GPA for Traditional Undergraduate Students (n=165)

	CAPS	WTC	IIS	GPA
Trait CA (PRCA)	.77 p=.000	-.44 p=.000	-.51 p=.000	-.20 p=.008
Classroom CA (CAPS)		-.50 p=.000	-.58 p=.000	-.19 p=.013
Willingness to communicate (WTC)			.39 p=.000	.02 p=.404
Interaction Involvement (IIS)				.21 p=.006

Notes:

1. Correlations involving GPA are based on n=138.
2. Probability values are for one-tailed tests of significance.

Table 4

Pearson Correlation Coefficients Among Scores on the PRCA, CAPS, WTC, IIS and Cumulative GPA for Adult Learners (n=108)

	CAPS	WTC	IIS	GPA
Trait CA (PRCA)	.73 p=.000	-.63 p=.000	-.52 p=.000	-.09 p=.204
Classroom CA (CAPS)		-.56 p=.000	-.41 p=.000	-.10 p=.172
Willingness to communicate (WTC)			.44 p=.000	.10 p=.178
Interaction Involvement (IIS)				.14 p=.090

Notes:

1. Correlations involving GPA are based on n=96.
2. Probability values are for one-tailed tests of significance.

Table 5

Summary of Stepwise Regression Analysis

Predictors: Trait CA (PRCA), Classroom CA (CAPS), Willingness to communicate (WTC) and Interaction Involvement (IIS)

Criterion: Cumulative GPA

Traditional Undergraduate Students (n=138)

Step	Variable entered	R square	Beta	F	p
1	Interaction Involvement	.05	.21	6.58	.011

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